

Appl. No. 10/524,398
Amdt. Dated May 19, 2008
Reply to Office Action of November 19, 2007

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A liquid ejection apparatus comprising:

~~having a line head having arranged by juxtaposing a plurality of liquid ejection parts of unit heads so as to connect the unit head to the adjacent unit head, each unit head having a plurality of ink at least part of the liquid ejection part for ejecting nozzles ink droplets from a nozzle, the liquid ejection apparatus comprising:~~

~~principal control means for controlling the ink ejecting elements of each unit head based upon a nominal operating condition for the unit head each of the liquid ejection part to eject liquid droplets from the nozzle; and~~

~~auxiliary control means for controlling the ink ejecting elements of each of a plurality of unit head elements based upon a determined operating condition for the unit head which differs from the nominal operating condition for the corresponding unit head liquid droplets to be ejected in at least one direction different from the ejection direction controlled by the principal control means in the arranging direction of the liquid ejection parts; and~~

~~auxiliary control execution determining means for individually setting whether the auxiliary control means is executed for each of the unit head.~~

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Claims 2-11. (Canceled) Please cancel claims 2-11.

12. (Currently Amended) The apparatus according to Claim 1, wherein the liquid ejection apparatus part comprises:

a liquid chamber for accommodating liquid to be ejected associated with each ink ejecting element;

bubble generating means arranged within the liquid chamber for generating bubbles in liquid contained in the liquid chamber by supplying energy; and

a nozzle forming member having nozzles formed therein thereon for ejecting liquid contained in a corresponding the liquid chamber in operatively associated with generation of bubbles, and

wherein the auxiliary control means controls liquid droplets to be ejected in a direction different from that of liquid droplets ejected by the principal control means by supplying energy to the bubble generating means in a different way from that of the principal control means based upon a nominal operating condition for the unit head.

13. (Currently Amended) The apparatus according to Claim 1, wherein the liquid ejection apparatus part comprises:

a liquid chamber for accommodating liquid to be ejected associated with each ink ejecting element;

a heating element arranged within the liquid chamber for generating

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bubbles in the liquid contained in the liquid chamber by supplying energy; and
a nozzle-forming member having nozzles formed therein ~~thereon~~ for ejecting
liquid contained in a corresponding ~~the~~ liquid chamber ~~in~~ operatively associated
with generation of bubbles, and

wherein a plurality of the heating elements are juxtaposed in each ~~the one~~
liquid chamber in ~~the~~ an arranging direction of the liquid ejection parts, ~~and are~~
~~connected together in series~~, and

further comprising ~~wherein the auxiliary control means comprises a circuit~~
having a switching

element connected between the heating elements ~~connected together in series~~, and
~~controls the ejection direction of liquid droplets to be ejected in a direction different~~
~~from that by the principal control means by passing electric current between the~~
~~heating elements through the circuit or by discharging electric current from~~
~~between the heating elements through the circuit so as to control electric current~~
~~for supplying to each heating element.~~

Claims 14.-15. (Canceled) Please cancel claims 14-15.

16. (Currently Amended) A liquid ejecting method for controlling the ejection
of ink from a ~~using~~ a line head arranged by juxtaposing a plurality of liquid
ejection parts of unit heads ~~so as to connect the unit head to the adjacent unit~~
~~head, each unit head having at least part of the liquid ejection part for ejecting ink~~

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droplets from a nozzle, the liquid ejecting method comprising the steps of:
~~executing providing~~ principal control means for ejecting liquid droplets from the nozzle of the liquid ejection part for each of a plurality of unit heads based upon a nominal operating condition for the unit head;
~~enabling auxiliary control means to be executed for controlling the ink ejecting elements of each of a plurality of unit head elements based upon a determined operating condition for the unit head which differs from the nominal operating condition for the corresponding unit head~~
~~ejecting liquid droplets in at least one direction different from that controlled by the principal control means in the arranging direction of the liquid ejection parts;~~
and
individually setting whether the auxiliary control means is executed for each ~~of the~~ unit head.

Claims 17-19 (Canceled)